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AUTHOR Philippi, Jorie W.
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ABSTRACT

Analysis of reading applications in everyday life and on the job should be done at the task level because a task is the lowest level of behavior that describes the performance of a meaningful function. The main objectives of such an analysis are to identify the technical aspects of the actions a learner performs in a functional setting and to identify the prerequisite reading skills and knowledge for those actions. The following 11 steps are performed during the analysis: (1) identify critical tasks during an interview with the learner; (2) observe a competent performer of the critical tasks in action, asking questions that produce information on the worker's mental processes; (3) obtain copies of printed materials used to perform the task; (4) review the materials to become oriented to the activities, environment, tools, and equipment for the task; (5) screen the materials for tasks that are problematic for learners; (6) sequence and prioritize the tasks selected for instructional materials development; (7) break down major tasks into steps, substeps, and single behaviors and identify the required reading, writing, and computation processes employed for each; (8) analyze each task behavior to determine what fact or concept students need to know or learn; (9) document the tasks and the reading, writing, and computing processes embedded in each and make instructional objectives of them; (10) categorize the functional tasks by reading, writing, computing processes needed; and (11) retain the printed functional task materials to use with students. (The document contains lists that show applications of reading skills and of writing skills found in the workplace and a sample literacy task analysis format.) (CML)

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Jorie W. Philippi September, 1989
Performance Plus 7869 Godolphin Dr.,
Springfield, VA 22153 (703) 455-1735

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Performing Task and Concept Analysis for Developing Instruction for Adult Learners

Analysis of reading applications in everyday life and on the job should be done at the task level because a task is the lowest level of behavior that describes the performance of a meaningful function. The task is described in terms of performance behaviors on everyday or work activities. The activities that make up the procedures are the elements within the task. The elements of a task describe exactly how a task is performed. The main objectives of such an analysis are:

- **to identify the technical aspects of the actions a learner performs in a functional setting.**
- **to identify the prerequisite reading competencies (skills and knowledge) whose attainment allow a student to perform the technical aspects of the everyday or job tasks.**

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The method of data collection for the analysis is a review of printed materials used to perform the task, combined with information from on-site observation/interviews of competent performers of the task. To conduct a Literacy Task Analysis, you will need to complete the procedure below.

Analysis Procedure:

1. Identify critical tasks from learner interview. These will be everyday work or non-work activities that the learner needs to perform regularly.

2. Observe a competent performer of the critical tasks in action. During the observation, ask the performer questions that give you information about the mental processes they are going through to perform the task. (Examples: "How do you....?" or "Could you please show me how you...?" or "Suppose you had to teach me how to do this. What are the most important things I'd have to learn? What would you teach me first? Why?" and so on.) You may need to observe 2 or 3 competent performers of the same task to abstract the entire mental processing that is required to perform the task because competent performers tend to develop personal "short-cuts."

3. Obtain copies of printed materials used to perform the task you observed/ interviewed. If filled-in forms are used, get a copy of one that is filled in and an extra copy that is blank. This will allow you to create instructional exercises that simulate the actual use of the form.

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4. Review the collected printed task materials and your notes to familiarize yourself with the materials and goals. In other words, do your "homework" to orient yourself to the activities, environment, tools, and equipment for the task.

5. Screen the printed task materials for problematic tasks for learners that are also **necessary** to perform the task.

6. Sequence and prioritize the tasks selected for instructional materials development. How difficult are they? How often are they used? What are the points of difficulty within the mental information processing that goes on during performance of the task? You may need to check back with a supervisor or with the competent performer(s) you observed/interviewed to help you determine these facts.

7. Break down major tasks into steps, substeps, and single behaviors; identify the required reading, writing, and computation processes employed for each. Refer to the lists of suggested workplace basic skill applications for a general framework to guide your identification of processes.

8. Analyze each task behavior to determine what fact or concept students need to know or learn to perform it.

9. Document the tasks and reading, writing, computing processes embedded in each. These are used as instructional objectives and illustrate the direct connection to the task performed. Refer to the sample literacy task analysis documentation for format.

10. Categorize the functional tasks by the reading, writing, computing processes needed to perform the task. This will help you design your sequence of instruction related to each task. It will also help you to cross-reference the instructional lessons you create and integrate them with skill materials you may already be using or planning to use.

11. Coalate printed functional task materials with the reading, writing, computing processes you have identified. This will enable you to build a file of personal "raw resource" task materials for each learner from which you can develop instructional lessons.

Philippi, J.W. 1989 Technology Transfer Evaluation Report.Appendix C, pg. 16. Washington, D.C.: National Alliance of Business and U.S. Department of Labor.

SAMPLE LITERACY TASK ANALYSES FORMAT

Position: Quality Assurance Inspector/Technician
Job Task: Checking for Product Errors

JOB SUBTASKS	LITERACY (BASIC SKILLS) TASKS
1. Trouble-shoots all component operations at end of assembly line (untimed); makes minor repairs.	**1.1** Following procedural directions.
	1.2 Locating information/parts.
	1.3 Compare/contrasting (detecting errors).
	1.4 Sequencing alternatives.
	1.5 Predicting outcomes.
	1.6 Prioritizing actions (decision-making).
2. Locates information in manuals (wire diagrams, schematics, tables of specifications).	**2.1** Locating information (relevant/irrelevant).
	2.2 Reading schematics and diagrams (isolating and tracing components).
	2.3 Reading 2+ -column charts (using intersecting lists).
3. Checks noise levels, operation of unit (levels of input and output and switches).	**3.1** Reading gauges (reading fractions and decimals, interpreting measurements).
	3.2 Compare/contrasting (actual w/ specifications).
4. Writes up errors on form, entering correct information in appropriate locations on form, and summarizes actions taken to correct any detected errors.	**4.1** Locating information (designated areas on form).
	4.2 Translating information to a written specific format.
	4.3 Entering information on form correctly.
	4.4 Writing summary statements of actions taken(paraphrasing).

(Basic concepts/knowledge required to perform task: DC/AC current; small electrical repairs; basic electronics. Tools required to perform task: solder gun; small elecrical repair tools; test equipment; oscilloscope.)